

**Form PTO-1449 Modified**

List of Patent and Publications  
Cited by Applicant  
(Use several sheets if necessary)

U.S. Department of Commerce  
Patent and Trademark Office

Packet No.  
**ISIS-4407**

Serial No.  
**09/640,279**

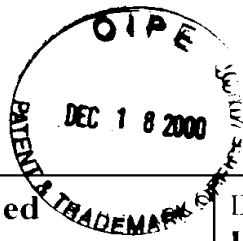
Applicant  
**Yogesh S. Sanghvi and Quaniai Song**

Filing Date  
**August 16, 2000**

Group **1635**  
~~Not Yet Assigned~~

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	<b>AU</b>	Zhang, Z., et al., "Solid phase synthesis of oligonucleotide phosphorothioate analogues using bis(ethoxythiocarbonyl)tetrasulfide as a new sulfur-transfer reagent." <i>Tetrahedron Lett.</i> , <b>1998</b> , 39, 2467-2470
	<b>AV</b>	Zhang, Z., et al., "Solid phase synthesis of oligonucleotide phosphorothioate analogues using 3-methyl-1,2,4-dithiazolin-5-one (MEDITH) as a new sulfur-transfer reagent." <i>Tetrahedron Lett.</i> , <b>1999</b> , 40, 2095-2098
<b>EXAMINER</b>		
	<b>DATE CONSIDERED</b>	<b>10-21-02</b>

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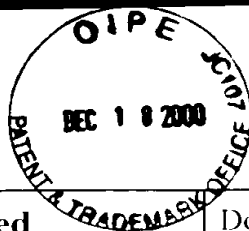
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**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	<b>AL</b>	Polushin, N. N. et al., "Synthesis of Oligonucleotides Containing 2'-Azido-and 2'-Amino-2'-deoxyuridine Using Phosphotriester Chemistry," <i>Tetrahedron Letts.</i> , <b>1996</b> , 37(19), 3227-3230
	<b>AM</b>	Rao, M.V., et al., "Solid phase synthesis of phosphorothioate oligonucleotides using benzyltriethylammonium tetrathiomolybdate as a rapid sulfur transfer reagent," <i>Tetrahedron Lett.</i> , <b>1994</b> , 35(36), 6741-6744
	<b>AN</b>	Rao, M.V. et al., "Dibenzoyl Tetrasulphide-A Rapid Sulphur Transfer Agent in the Synthesis of Phosphorothioate Analogues of Oligonucleotides", <i>Tetrahedron Letts.</i> , <b>1992</b> , 33, 4839-4842
	<b>AO</b>	Roclen, H. et al., "A study on the use of phenylacetyl disulfide in the solid-phase synthesis of oligodeoxynucleoside phosphorothioates," <i>Recl. Trav. Chim. Pays-Bas</i> , <b>1991</b> , 110, 325-331
	<b>AP</b>	Stec, W.J. et al., "Bis (O,O-Diisopropoxy Phosphinothiyl) Disulfide - A Highly Efficient Sulfurizing Reagent for Cost-Effective Synthesis of Oligo(Nucleoside Phosphorothioate)s", <i>Tetrahedron Letts.</i> , <b>1993</b> , 34(33), 5317-5320
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	<b>AR</b>	Vu, H., et al., "Internucleotide phosphite sulfurization with tetraethylthiuram disulfide. Phosphorothioate oligonucleotides synthesis via phosphoramidite chemistry," <i>Tetrahedron Lett.</i> , <b>1991</b> , 32(26), 3005-3008
	<b>AS</b>	Xu, Q. et al., "Use of 1,2,4-dithiazolidine (DtsNH) and 3-ethoxy-1,2,4-dithiazoline-5-one (EDITH) for synthesis of phosphorothioate-containing oligodeoxyribonucleotides", <i>Nucl. Acids Res.</i> , <b>1996</b> , 24(9), 1602-1607
	<b>AT</b>	Xu, Q. et al., "Efficient introduction of phosphorothioates into RNA oligonucleotides by 3-ethoxy-1,2,4-dithiazoline-5-one (EDITH)", <i>Nucl. Acids Res.</i> , <b>1996</b> , 24, 3643-3644

**EXAMINER****DATE CONSIDERED**

10-21-02



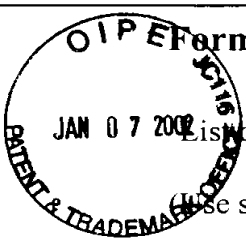
<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. <b>ISIS-4407</b>	Serial No. <b>09/640,299</b>
	Applicant <b>Yogesh S. Sanghvi and Quaniai Song</b>	
	Filing Date <b>August 16, 2000</b>	Group <b>1635</b> <del>Not Yet Assigned</del>

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	<b>AA</b>	Beaucage, S.L. et al., "The Synthesis of Modified Oligonucleotides by the Phosphoramidite Approach and their Applications", <i>Tetrahedron</i> , <b>1993</b> , 49, 6123-6194
	<b>AB</b>	Cheruvallah, Z.S., et al., "Synthesis of antisense oligonucleotides: Replacement of 3H-1,2-benzodithiol-3-one 1, 1-dioxide (Beaucage Reagent) with phenylacetyl disulfide (PADS) as efficient sulfurization reagent: From bench to bulk manufacture of active pharmaceutical ingredient," <i>Organic Process Research &amp; Development</i> , <b>2000</b> , 4, 199-204
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	<b>AE</b>	Efimov, V.A. et al., "New efficient sulfurizing reagents for the preparation of oligodeoxyribonucleotide phosphorothioate analogues", <i>Nucl. Acids Res.</i> , <b>1995</b> , 23, 4029-4033
	<b>AF</b>	Eleueri, A., et al., "Pyridinium trifluoroacetate/ <i>N</i> -methylimidazole as an efficient activator for oligonucleotide synthesis via the phosphoramidite method," <i>Organic Process Res. &amp; Dev.</i> , <b>2000</b> , 4, 182-189
	<b>AG</b>	Eliel, E.L., et al., "Highly stereoselective syntheses involving <i>N</i> -alkyl-4,4,7 $\alpha$ -trimethyl- <i>trans</i> -octahydro-1,3-benzoxazine intermediates," <i>J. Org. Chem.</i> , <b>1990</b> , 55(7), 2114-2119
	<b>AH</b>	He, X-C. et al., "Highly Enantioselective Syntheses of $\alpha$ -Hydroxyacids Using <i>N</i> -Benzyl-4,4,7 $\alpha$ -Trimethyl- <i>Trans</i> -Octahydro-1,3-Benzoxazine as a Chiral Adjuvant," <i>Tetrahedron</i> , <b>1987</b> , 43(21), 4979-4987
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	<b>AJ</b>	Iyer, R.P. et al., "The Automated Synthesis of Sulfur-Containing Oligodeoxyribonucleotides Using 3H-1,2-Benzodithiol-3-one 1,1-Dioxide as a Sulfur-Transfer Reagent", <i>J. Org. Chem.</i> , <b>1990</b> , 55, 4693-4699
	<b>AK</b>	Kamer, P.C.J. et al., "An Efficient Approach Toward the Synthesis of Phosphorothioate Diesters via the Schonberg Reaction", <i>Tetrahedron Letts.</i> , <b>1989</b> , 30, 6757-6760
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<b>OIP Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. <b>ISIS-4407</b>	Serial No. <b>09/640,279</b>
	Applicant <b>Yogesh S. Sanghvi, et al.</b>	
	Filing Date <b>August 16, 2000</b>	Group <b>1614-1635</b>

**U. S. PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Name	Class	Subclass
<i>De</i>	AA	5,386,023	01/31/95	Sanghvi, et al.	<del>536</del>	<del>25.3</del>
<i>De</i>	AB	6,025,482	02/15/00	Cook, et al.	<del>536</del>	<del>23.1</del>

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO

EXAMINER

*Patricia Ford*

DATE CONSIDERED

*10-21-02*